

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte STEPHAN LADISCH

Appeal No. 1996-2568
Application No. 08/071,304

ON BRIEF

Before WINTERS, SPIEGEL, and ADAMS, Administrative Patent Judges.

ADAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1, 7-9, 11, 19 and 20, which are all the claims pending in the application.

Claims 1 and 11 are illustrative of the subject matter on appeal and are reproduced below:

1. A method for suppressing an immune response in an animal which comprises administering to the animal an immunosuppressively effective amount of a ganglioside where said ganglioside is G_{M4}.

11. A composition for suppressing an immune response in an animal upon administration to said animal, said composition consisting essentially of:
an immunosuppressive concentration of a ganglioside, wherein said ganglioside is G_{M4}; and
a physiologically acceptable carrier for said ganglioside.

The references relied upon by the examiner are:

DeLoach et al. (DeLoach)	4,327,710	May 4, 1982
Fabricius et al (Fabricius)	4,388,309	Jun. 14, 1983

Yates et al. (Yates), Immunological Properties of Gangliosides, American Chemical Society, Volume 128, pp. 419-33 (1980)

GROUND OF REJECTION

Claim 1, 7 and 8 are rejected under 35 U.S.C. § 103 as being unpatentable over Yates in view of Fabricius.

Claim 9 is rejected under 35 U.S.C. § 103 as being unpatentable over Yates in view of Fabricius, further in view of DeLoach.

Claim 11 is rejected under 35 U.S.C. § 103 as being unpatentable over Yates.

Claim 19 is rejected under 35 U.S.C. § 103 as being unpatentable over Yates in view of Fabricius.

Claim 20 is rejected under 35 U.S.C. § 103 as being unpatentable over Yates in view of DeLoach.

We reverse the rejections under 35 U.S.C. § 103.

DISCUSSION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, and to the respective positions articulated by the appellant and the examiner. We make reference to the examiner's Answer (Paper No. 13, mailed March 9, 1995), and the examiner's Supplemental Answer (Paper No. 17, mailed February 24, 1999) for the examiner's reasoning in support of the rejection. We further reference appellant's Brief (Paper No. 12, received December 5, 1994), and appellant's Reply Brief (Paper No. 14, received April 20, 1995) for the appellant's arguments in favor of patentability.

THE REJECTIONS UNDER 35 U.S.C. § 103:

At page 3 of the Answer, with reference to appellant's composition claims, the examiner states that "Yates presents *in vitro* data showing the immunosuppressant properties of G_{M4}. Table V demonstrates that G_{M4} has an immunosuppressant effect when added to mixed leukocyte cultures. Yates thereby also teaches aqueous cultures which contain G_{M4}." At page 6 of the Answer, in reference to appellant's method

claims, the examiner states that “Yates presents *in vitro* data showing the immunosuppressant properties of G_{M4} , but does not explicitly teach a method for *in vivo* suppression of the immune response. The examiner then applies Yates in various combinations with either Fabricius or DeLoach.

Appellant points out that Yates “does not set forth a physiologically acceptable carrier” a positively recited limitation in appellant’s composition claims. See, Brief, page 9. In addition, appellant takes the position that when Yates is taken as a whole it teaches away from the claimed invention. In determining whether the claimed invention is obvious, a prior art reference must be read as a whole and consideration must be given here the reference teaches away from the claimed invention. Akzo N.V., Aramide Maatschappij v.o.f. v. United States Int’l Trade Comm’n, 808 F.2d 1471, 1481, 1 USPQ2d 1241, 1246 (Fed. Cir. 1986).

The examiner identifies that Yates illustrates a G_{M4} immunosuppressant effect in mixed leukocyte cultures. However, the examiner does not consider the other teachings in the Yates reference. Particularly, Yates, page 422, “[t]he data in Table IV show that GM4 & GM3, resulted in no inhibition of Con A reactivity even at the highest concentration of 12.6 nanomoles.” Yates concludes in the discussion at

page 431 that “[n]ot all gangliosides have similar inhibitory effects. The ones with the simplest oligosaccharide units (GM4 and GM3) have no inhibitory effect . . .” At page 2 of the Reply Brief, appellant characterizes the statement at page 431 of Yates as “a definite and succinct teaching away from Appellant’s invention.” We note that Yates does not teach or suggest a composition consisting essentially of an immunosuppressive concentration of a ganglioside, wherein said ganglioside is G_{M4} ; and a physiologically acceptable carrier for said ganglioside, as require by claim 11. We also note that Yates does not teach or suggest a method for suppressing an immune response in an animal which comprises administering to the animal an immunosuppressively effective amount of a ganglioside where said ganglioside is G_{M4} , as require by claim 1.

At page 11 of the Brief, appellant states “[c]learly a person of ordinary skill would not be motivated by these disclosures, demonstrating the apparent inactivity of G_{M4} , to combine G_{M4} with a physiologically acceptable carrier in order to form a composition for suppressing an immune response.” We agree with appellant. It is well established that before a conclusion of obviousness may be made based on a combination of references, there must have been a reason, suggestion or motivation to lead an inventor to combine those references. Pro-Mold and Tool Co. v. Great Lakes Plastics

Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629 (Fed. Cir. 1996).

The examiner relies on Fabricius for the disclosure of “the use of liposomes as carriers for gangliosides to be used to suppress the immune response in a host. Fabricius does not specifically disclose the use of G_{M4} .” See, Answer, page 4. The examiner states that “DeLoach discloses a process for encapsulation inside resealed erythrocytes of pharmaceutical agents to be administered to animals, but does not specifically disclose encapsulation of gangliosides.” At page 12 of the Brief, appellant states that “given the fact that the base reference, Yates, teaches away from the instant invention in that it would indicate that G_{M4} would not have the requisite properties of the instant invention, a person of ordinary skill would have no motivation to combine Yates and Fabricius [or DeLoach].” We agree with appellant. Only when the prior art suggests the subject matter of a claim as a whole, and provides an enabling disclosure as to how one would make the claimed invention, can one properly conclude that the subject matter of a claim would have been obvious under 35 U.S.C. § 103.

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Accordingly, the rejections of claims 1, 7-9, 11, 19 and 20 under 35 U.S.C. § 103
are reversed.

REVERSED

SHERMAN D. WINTERS
Administrative Patent Judge

CAROL A. SPIEGEL
Administrative Patent Judge

DONALD E. ADAMS
Administrative Patent Judge

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